

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Currently Amended) A ~~vascular access~~ catheter adapter device comprising:

a housing having a distal end, a proximal end, and defining a cavity, said the proximal end being adapted to connect to a catheter, a self-sealing injection port in fluid communication with the cavity;

a subhousing having a ~~pair of ends~~ first end and a second end and defining a cavity, said the subhousing being movably connected at one-the first end to the housing so that the subhousing cavity is in fluid communication with the housing cavity and a position of the other second end of the subhousing relative to the housing can be selectively adjusted within a range of positions; and

a unidirectional fluid valve permitting solution flow from the subhousing to the housing while substantially preventing solution flow from the housing to the subhousing.

2. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 wherein the housing is generally linearly aligned so that the self-sealing injection port is opposite the proximal end.

3. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 wherein the subhousing is connected to the housing via a swivel joint.

4. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 3 wherein the swivel joint provides a 360 degree range of motion.

5. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 further comprising: a luer-style connector at the proximal end of the housing for securing the housing to the catheter.

6. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 further comprising: a second self sealing injection port which is connected to the subhousing.

7. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 wherein a first part of the subhousing terminates at the first end of the subhousing, a second part of the subhousing terminates at the second end of the subhousing, and the first and second parts of the subhousing are joined at an angle of approximately 90 degrees ~~the pair of ends of the subhousing are separated by approximately 90 degrees.~~

8. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 further comprising: a cap for sealing ~~one of the pair of ends~~ the second end of the subhousing.

9. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 wherein the fluid valve is carried within the housing.

10. (Currently Amended) The ~~vascular access~~ catheter adapter device of claim 1 wherein the fluid valve includes a movable disk-shaped element.

11. (Currently Amended) An apparatus comprising:  
a catheter adapted for entry into a vascular system; and  
a ~~vascular access~~ catheter adapter device removably connected to the catheter, the catheter adapter device having

a hollow housing having a distal end, a proximal end, and defining a cavity, said the proximal end being adapted to connect to a catheter,

a self-sealing injection port in fluid communication with the cavity,

a subhousing having a ~~pair of ends~~ first end and a second end and defining a cavity, said ~~the~~ subhousing being movably connected at ~~one the~~ first end to the housing so that the subhousing cavity is in fluid communication with the housing cavity and a position of the other second end of the subhousing relative to the housing can be selectively adjusted within a range of positions, and

a unidirectional fluid valve permitting solution flow from the subhousing to the housing while substantially preventing solution flow from the housing to the subhousing.

12. (Original) The apparatus of claim 11 wherein the housing is generally linearly aligned so that the self-sealing injection port is opposite the proximal end.

13. (Original) The apparatus of claim 11 wherein the subhousing is connected to the housing via a swivel joint.

14. (Original) The apparatus of claim 11 further comprising: a second self sealing injection port which is connected to the subhousing.

15. (Currently Amended) The apparatus of claim 11 wherein a first part of the subhousing terminates at the first end of the subhousing, a second part of the subhousing terminates at the second end of the subhousing, and the first and second parts of the subhousing are joined at an angle of approximately 90 degrees~~the pair of ends of the subhousing are separated by approximately 90 degrees.~~

16. (Original) The apparatus of claim 11 wherein the fluid valve is carried within the housing.

17. (Original) The apparatus of claim 11 wherein the fluid valve includes a movable disk-shaped element.

18. (Original) The apparatus of claim 11 further comprising: a needle received within the catheter.

19. (Currently Amended) A method comprising the steps of:

providing a ~~vascular access~~ catheter adapter device having a hollow housing having a distal end, a proximal end, and defining a cavity, a self-sealing injection port in fluid communication with the cavity, a subhousing having a ~~pair of ends~~ first end and a second end and defining a cavity, ~~said the~~ subhousing being movably connected at ~~one the first end~~ to the housing so that the subhousing cavity is in fluid communication with the housing cavity and a position of the other the second end of the subhousing relative to the housing can be selectively adjusted within a range of positions, and a unidirectional fluid valve permitting solution flow from the subhousing to the housing while substantially preventing solution flow from the housing to the subhousing;

connecting the ~~vascular access~~ catheter adapter device to a catheter at its proximal end;

connecting the ~~vascular access~~ catheter adapter device to a fluid line at ~~one the second~~ end of the subhousing;

adjusting the position of the subhousing relative to the housing; and

flowing fluid from the subhousing to the housing and through the fluid valve.

20. (Original) The method of claim 19 further comprising the step of: withdrawing fluid within the housing through the self sealing injection port.

21. (Original) The method of claim 19 further comprising the step of: inserting a wire-based treatment device through the self-sealing injection port and into the vascular system of the patient.

22. (Original) The method of claim 21 wherein the wire-based treatment device is selected from the group consisting of: a guide wire, a balloon catheter and a pressure sensor.

23. (Currently Amended) A ~~vascular access~~ catheter adapter device comprising:

a hollow housing having a distal end, a proximal end, and defining a cavity, said the proximal end removably connected to a catheter having an elongated catheter sheath extending in a predetermined direction;

a self-sealing injection port in fluid communication with the cavity;

a subhousing having a ~~pair of ends~~ first end and a second and defining a cavity therethrough, the including a first end rotatably connected to the housing and ~~a the~~ a second end ~~connected~~ capable of connection to an IV line ~~which extends generally in the predetermined direction,~~ wherein a first part of the subhousing terminates at the first end of the subhousing, a second part of the subhousing terminates at the second end of the subhousing, and the first and second parts of the subhousing are joined at an angle of approximately 90 degrees so that the housing and subhousing together define are capable of defining a generally U-shaped structure;

and a unidirectional fluid valve permitting solution flow from the subhousing to the housing while substantially preventing solution flow from the housing to the subhousing.

24. (Currently Amended) ~~A vascular access~~ The catheter adapter device of claim 23 wherein the first end of the subhousing is ~~movably~~ connected to the housing via a swivel joint.